

## ABSTRACT OF THE DISCLOSURE

A detection article including at least one fluid control film layer having at least one microstructured major surface with a plurality of microchannels therein. The microchannels configured for uninterrupted fluid flow of a fluid sample

5        throughout the article. The film layer including an acquisition zone wherein portions of the plurality of microchannels draw the fluid sample into the plurality of microchannels through openings in the microchannels at least by spontaneous fluid transport. The film layer also including a detection zone in uninterrupted fluid communication with the acquisition zone along the microchannels with the detection

10      zone including at least one detection element that facilitates detection of a characteristic of the fluid sample within at least one microchannel of the detection zone. The detection article may be formed from a plurality of film layers that are stacked to form a three-dimensional article. The detection zone may include a plurality of detection elements, which may be all the same, may be all different or may have

15      some different and some the same. In addition, the detection elements may be variations of the same element. The detection elements may include hardware devices, assay reagents and/or sample purification materials.